

The North Dakota Department of Health is providing the following information from the Centers for Disease Control and Prevention (CDC) regarding chikungunya infection in the United States related to travel to the Caribbean. Updated information from the CDC (bullet points) as well as the original health alert message are below.

As of June 23, there have been no cases reported in North Dakota. We are asking providers to remain vigilant in keeping chikungunya infections in the differential diagnosis for patients presenting with acute onset of fever and polyarthralgia who are returning from travel in the Caribbean or affected areas in Africa, Asia, Europe and the Pacific and Indian oceans. A map and list of countries where Chikungunya has been found can be found at <a href="https://www.cdc.gov/chikungunya/geo/index.html">www.cdc.gov/chikungunya/geo/index.html</a>.

Suspected cases should be reported to the North Dakota Department of Health by calling 1.800.472.2180.

- Beginning in 2014, cases have been identified in the United States in travelers returning from the Caribbean. As of June 24, a total of 88 chikungunya cases have been reported to ArboNET from U.S. states and territories. Fifteen locally-transmitted cases have been reported from Puerto Rico and the U.S. Virgin Islands. All other cases occurred in travelers returning from affected areas in the Caribbean (N=72) or Asia (N=1). To date, no local transmission has been identified in the continental United States.
- With the recent outbreaks in the Caribbean and the Pacific, the number of chikungunya cases among travelers visiting or returning to the United States from affected areas will likely increase. These imported cases could result in local spread of the virus in the continental United States.

The CDC chikungunya webpage will be regularly updated with the status of chickungunya in the United States at http://www.cdc.gov/chikungunya/geo/americas.html

This is an official

## **CDC HEALTH ADVISORY**

Distributed via the CDC Health Alert Network December 13, 2013, 1400:00 (2:00 PM ET) CDCHAN-00358

### **Summary**

On December 7, 2013, the World Health Organization (WHO) reported the first local (autochthonous) transmission of chikungunya virus in the Americas. As of December 12th, 10 cases of chikungunya have been confirmed in patients who reside on the French side of St. Martin in the Caribbean. Laboratory testing is pending on additional suspected cases. Onset of illness for confirmed cases was between October 15 and December 4. At this time, there are no reports of other suspected chikungunya cases outside St. Martin. However, further spread to other countries in the region is possible.

Chikungunya virus infection should be considered in patients with acute onset of fever and polyarthralgia, especially those who have recently traveled to the Caribbean. Healthcare providers are encouraged to report suspected chikungunya cases to their state or local health department to facilitate diagnosis and to mitigate the risk of local transmission.

## Background

Chikungunya virus is a mosquito-borne alphavirus transmitted primarily by *Aedes aegypti* and *Aedes albopictus* mosquitoes. Humans are the primary reservoir during epidemics. Outbreaks have been documented in Africa, Southern Europe, Southeast Asia, the Indian subcontinent, and islands in the Indian and Pacific Oceans. Prior to the cases on St. Martin, the only chikungunya cases identified in the Americas were in travelers returning from endemic areas.

#### Clinical Disease

A majority of people infected with chikungunya virus become symptomatic. The incubation period is typically 3–7 days (range, 2–12 days). The most common clinical findings are acute onset of fever and polyarthralgia. Joint pains are often severe and debilitating. Other symptoms may include headache, myalgia, arthritis, or rash. Persons at risk for more severe disease include neonates (aged <1 month) exposed intrapartum, older adults (e.g.,  $\geq$  65 years), and persons with underlying medical conditions (e.g., hypertension, diabetes, or cardiovascular disease).

#### Diagnosis

Chikungunya virus infection should be considered in patients with acute onset of fever and polyarthralgia who recently returned from the Caribbean. Laboratory diagnosis is generally accomplished by testing serum to detect virus, viral nucleic acid, or virus-specific immunoglobulin M (IgM) and neutralizing antibodies. During the first week of illness, chikungunya virus infection can often be diagnosed by using viral culture or nucleic acid amplification on serum. Virus-specific IgM and neutralizing antibodies normally develop toward the end of the first week of illness. To definitively rule out the diagnosis, convalescent-phase samples should be obtained from patients whose acute-phase samples test negative.

Chikungunya virus diagnostic testing is performed at CDC, two state health departments (California and New York), and one commercial laboratory (Focus Diagnostics). Healthcare providers should contact their state or local health department to facilitate testing.

#### **Treatment**

No specific antiviral treatment is available for chikungunya fever. Treatment is generally palliative and can include rest, fluids, and use of analgesics and antipyretics. Because of similar geographic distribution and symptoms, patients with suspected chikungunya virus infections also should be evaluated and managed for possible dengue virus infection. People infected with chikungunya or dengue virus should be protected from further mosquito exposure during the first few days of illness to prevent other mosquitoes from becoming infected and reduce the risk of local transmission.

#### Prevention

No vaccine or preventive drug is available. The best way to prevent chikungunya virus infection is to avoid mosquito bites. Use air conditioning or screens when indoors. Use insect repellents and wear long sleeves and pants when outdoors. People at increased risk for severe disease should consider not traveling to areas with ongoing chikungunya outbreaks.

# Recommendations for Health Care Providers and Public Health Practitioners

• Chikungunya virus infection should be considered in patients with acute onset of fever and polyarthralgia, especially those who have recently traveled to the Caribbean.

- Healthcare providers are encouraged to report suspected chikungunya cases to their state or local health department to facilitate diagnosis and to mitigate the risk of local transmission.
- Health departments should perform surveillance for chikungunya cases in returning travelers
  and be aware of the risk of possible local transmission in areas where *Aedes* species
  mosquitoes are currently active.
- State health departments are encouraged to report laboratory-confirmed chikungunya virus infections to ArboNET, the national surveillance system for arthropod-borne viruses.

#### For more information

- General information about chikungunya virus and disease: <a href="http://www.cdc.gov/chikungunya/">http://www.cdc.gov/chikungunya/</a>
- Chikungunya information for clinicians:
   <a href="http://www.cdc.gov/chikungunya/pdfs/CHIKV\_Clinicians.pdf">http://www.cdc.gov/chikungunya/pdfs/CHIKV\_Clinicians.pdf</a>
- Protection against mosquitoes: <a href="http://wwwnc.cdc.gov/travel/yellowbook/2014/chapter-2-the-pre-travel-consultation/protection-against-mosquitoes-ticks-and-other-insects-and-arthropods">http://wwwnc.cdc.gov/travel/yellowbook/2014/chapter-2-the-pre-travel-consultation/protection-against-mosquitoes-ticks-and-other-insects-and-arthropods</a>
- Travel notices related to chikungunya virus: <a href="http://wwwnc.cdc.gov/travel/notices">http://wwwnc.cdc.gov/travel/notices</a>
- Information about chikungunya for travelers and travel health providers:
   http://wwwnc.cdc.gov/travel/yellowbook/2014/chapter-3-infectious-diseases-related-to-travel/chikungunya
- Chikungunya preparedness and response guidelines:
   <a href="http://new.paho.org/hq/index.php?option=com\_docman&task=doc\_download&gid=16984&It">http://new.paho.org/hq/index.php?option=com\_docman&task=doc\_download&gid=16984&It</a>
   emid
- Dengue clinical management guidelines:
   http://whqlibdoc.who.int/publications/2009/9789241547871\_eng.pdf

The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national and international organizations.

#### DEPARTMENT OF HEALTH AND HUMAN SERVICES

- **Health Alert:** Conveys the highest level of importance; warrants immediate action or attention. Example: HAN00001
- **Health Advisory:** Provides important information for a specific incident or situation; may not require immediate action. Example: HAN00346
- **Health Update:** Provides updated information regarding an incident or situation; unlikely to require immediate action. Example: HAN00342
- **Info Service:** Provides general information that is not necessarily considered to be of an emergent nature. Example: HAN00345

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This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations.

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